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ABSTRACT

This report describes the first field test of the goals in a secondary school environment to give decision makers insight into school priorities in relation to educational objectives. One hundred eight-five students, teachers, and parents from a suburban secondary school rated educational goals on a five-point scale. Four groups of subjects each rated sets of about 60 goals; one group of subjects rated a set of 64 more general "supergoals"; and one group of students rated the complete set of 234 goals. Students, teachers, and parents tended to attach similar importance to the same goals. Goals in nonacademic areas were uniformly rated high while several academic areas fared poorly in the ratings. Item samplings of goals resulted in rating comparable to a procedure where item sampling was not used. Students who rated small decks of goals rated them about the same as those who rated an entire set of goals. Rating given to supergoals were in many cases significantly different from mean ratings of the goals subsumed under them. Subjects agreed that many types of individuals should participate in the goal rating process. (Mean ratings for supergoals and goals are appended, and a three-item bibliography is included.) (PD)

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DETERMINING EDUCATIONAL GOAL PRIORITIES IN A SECONDARY SCHOOL

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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SUMMARY

1. One hundred and eighty five students, teachers, and parents from a suburban secondary school rated a number of educational goals on a five-point scale of importance. The goals were developed by the Evaluation Technologies Program of the Center for the Study of Evaluation. Four groups of subjects each rated sets of about 60 goals and one group a set of 64 more general "supergoals." (Students, teachers, and parents were represented in all groups.) Finally, one group of students rated the complete set of 234 secondary goals.

2. Students, teachers, and parents tended to attach similar importance to the same goals. Goals in such non-academic areas as Personality Characteristics and Health and Safety were uniformly rated high while several academic areas (e.g., Science, Mathematics) fared relatively poorly in in the ratings.

3. Item sampling of goals resulted in comparable ratings to a procedure where item sampling was not used. Those students who rated small decks of goals rated them about the same as those who rated an entire 234 goal set.

4. Ratings given to supergoals were in many cases significantly different from mean ratings of the subgoals subsumed under them. One could not confidently infer from a supergoal rating what a goal rating would be.

5. Students, teachers, and parents all agreed that many types of individuals should participate in the goal-rating process. A very high percentage of students who rated a set of 234 goals said that the task was boring and that there were too many goals to rate. In contrast, most of those who rated small sets of goals felt that the task was interesting.

The approach taken by the Center for the Study of Evaluation (CSE) in needs-assessment evaluation stresses the gathering of information from a variety of sources. Needs assessment involves stating potential educational goals or objectives, deciding which of these are of highest priority, and determining how well the existing educational program is meeting these objectives. The latter information is used to identify the major needs of the school.

The CSE Elementary School Evaluation KIT: Needs Assessment (Hoepfner, Bradley, Klein, & Alkin, 1972) guides the elementary school principal in selecting, collecting and analyzing information for needs-assessment decision making. Choosing valid and reliable standardized tests to measure current student achievement is emphasized. Another feature is the collective viewpoints procedure of goal selection in which significant individuals in the school (parents, faculty, and the principal) rate educational goals for their importance on a five-interval scale.

The 106 goals in the Needs Assessment KIT refer to student outcomes in the academic, affective and psychomotor domains. Each goal consists of a title followed by a short descriptive paragraph that summarizes the attributes of a pupil who is reaching that goal. The level of generality is a compromise between the extreme specificity of a behavioral objective and the broadness of an all-encompassing statement (e.g., Goal 3B. Self-Esteem. Has a healthy self-concept, self-confidence, self-security and self-esteem).

The Evaluation Technologies Program of CSE has recently constructed a set of 234 goals of secondary education. These goals serve a parallel function to the 106 elementary goals. First, they provide a taxonomy into which tests can be categorized and evaluated (CSE Secondary School Test Evaluations, Hoepfner, et al., 1974). Second, they will provide a basis for the collective

viewpoints procedure in a projected secondary school Needs Assessment KIT. Relevant individuals in a secondary school can rate the goals for importance and thus give a decision maker valuable insight into school priorities.

This report describes the first field test of the secondary goals in a school environment. The purpose of the study was to answer several questions --some pragmatic and some of a research nature. It was important to discover if raters could simply perform the task--could they readily do what was expected of them? Did they make reasonable sense out of the goals? Besides these practical issues, several research questions were investigated, all related to the fact that there is a large number of secondary goals. The 106 elementary goals can be rated in about 30 minutes. However, there are more than twice as many secondary goals, leading to the inevitable conclusion that problems may arise in motivating individuals to rate that many items. This led to the question: is it feasible to use item sampling and give each rater a reduced set of goals?

A related question concerns the relationship of the goals to the more general supergoals under which they are classed. The 234 secondary goals are each subsumed under one of 64 more general supergoals (e.g., Supergoal 8. Grammar has two goals: 8A Parts of Speech and 8B Grammar of Sentences). When individuals rate supergoals instead of goals, are the ratings about the same as those that would result from individual goal ratings?

The major research questions of the study were concentrated in four areas:

1. A comparison of the ratings obtained from the three populations: students, teachers, and faculty.
2. A comparison of the ratings obtained from a group of subjects that rated an entire 234 goal deck with groups that rated smaller decks.
3. A comparison of supergoal ratings with those of the individual goals

under them.

4. A survey to answer three questions: According to the raters, should the results of goal rating be incorporated into the school program? How did raters feel about the rating process (interested, bored, etc.)? What group of people (parents, community members, etc.) did the raters believe should perform the goal rating?

METHOD

Subjects

The subjects were 185 individuals from a suburban area high school in Orange County, California: 68 students, 67 teachers and 50 parents. The students were members of two coeducational Physical Education classes that contained approximately equal numbers of sophomores, juniors, and seniors, males and females as well as students of various ability levels. The teachers constituted a 85% sample of an 80-person faculty. The parents consisted of volunteers attending an "open house" at the school.

Rating Procedure

The general task of every subject was identical--to rate a number of educational goals on a five-interval scale and then complete a short questionnaire about the rating process.

The purpose of the research was explained to the subjects and they were given background information on the development of the goals and the rating system. They were then handed a manila envelope containing a set of goals or supergoals printed on IBM cards, an instruction sheet, 5 small envelopes, and 5 rating "mats" (single sheets of paper numbered 1 through 5), and a questionnaire form.

The instructions directed each subject to place the rating mats on a table

from left to right. The rating mats were labeled:

1. Unimportant
2. Little importance
3. Average importance
4. Above average importance
5. Most important

The written instructions to the subject were as follows:

> Sort the goal cards into these five categories, based on how important YOU think they are for the education of a high school student. You may place as many or as few cards as you wish in each category. If you have difficulty in rating a card, put it in the back of the deck and sort it last. There are no right and wrong answers. If you are not sure into which category a goal should be placed, put it into the one in which you feel it comes closest.

After rating the goals, the subject placed each of the 5 rated decks into the small envelopes, filled out the 3-item questionnaire, and returned all materials to the experimenter.

Design

Parents and teachers were randomly assigned to one of five treatment groups; students to six treatment groups. Treatment groups differed in the number and type of goals they contained:

Treatment	Contents of Deck
1	58 goals
2	58 goals
3	59 goals
4	59 goals
5	64 supergoals
6 (students only)	234 goals

The goal decks in treatments 1 through 4 were selected from the total set

of 234 goals from subject fields in the same proportions as were present in the total set. For example, about the same proportions of mathematics goals were present in treatments 1, 2, 3 and 4 as were present in the 234 goal deck. No small deck was overbalanced with goals from a particular subject area. Treatment 5 involved giving subjects the deck of supergoals and treatment 6 giving subjects (students only) the entire 234 goal deck.

Table 1 gives a complete array of the treatment conditions and subject groups, including the number of persons in each cell.

TABLE 1

Number of Subjects in each Treatment
by Subject-Group Condition

	Subject Groups		
Treatments	Students	Teachers	Parents
1. 58 goals	n = 9	n = 12	n = 10
2. 58 goals	n = 9	n = 12	n = 8
3. 59 goals	n = 9	n = 12	n = 8
4. 59 goals	n = 8	n = 13	n = 12
5. 64 supergoals	n = 21	n = 8	n = 12
6. 234 goals	n = 12	n = 0	n = 0
TOTALS	68	67	50

RESULTS

Comparison of Students, Teachers, and Faculty

The average ratings of goals and supergoals for each group is contained in Table 10 (Appendix). A conception of these ratings can be gained from examining them in a more manageable form. Table 2 displays mean ratings for the combined

sample of sixteen major goal areas, with each mean representing an average over approximately 14 goals. Table 3 shows the ten highest rated goals for the three populations. Goals in the areas of Personality Characteristics, Health and Safety, Driver and Traffic Safety were consistently rated quite high while Music, Science, Industrial Arts, and Mathematics ranked rather low. Other specific subject-matter areas such as English and Social Studies fell somewhere in the middle of the range.

TABLE 2

Secondary School Goal Areas and
the Rated Importance

Goal Area	Mean Rating
Personality Characteristics (Temperament, Attitudinal Factors of Achievement, Social Behavior)	4.35
Health and Safety (Physical and Mental Health; Habit forming Substances; Marriage, Family and Sex Education; Public Health; Safety Education)	3.94
Driver and Traffic Safety (Safe Driving, Vehicle Purchase, and Maintenance)	3.82
Intellectual Skills (Understanding, Memory, Systematic Reasoning, Creativity, Evaluation)	3.66
English Language Arts (Developmental Reading; Speech, Drama, Oral Presentation; Grammar; Writing Skills; Forms of Literature; Analysis and Evaluation of Literature)	3.41
Social Studies (Anthropology, Economics, Geography, Government, History, Psychology, Sociology, Social Studies Skills)	3.40
Physical Education (Physical Development and Well Being; Sports and Games; Personal Impact of Physical Education)	3.29
Philosophy and Religion	3.22
Vocational Education (Knowledge and Skills for Success, General Aptitudes, General Attitudes, Interests, Perceptual and Motor Abilities)	3.15
Home Economics (Home and Family Management, Food and Meal Preparation, Clothing and Textiles)	3.13
Foreign Language (Knowledge of Elements, Mastery of Technique, Insight into a Culture, Assimilation of Language and Culture)	3.00
Arts and Crafts (Knowledge, Production, Response)	2.91
Music (Knowledge, Production, Response)	2.82
Science (Biology, Chemistry, General Science, Physics)	2.82
Industrial Arts (Arts and Practices)	2.75
Mathematics (General, Applied, Algebra, Geometry, Trigonometry, Probability and Statistics, Advanced Math)	2.68

TABLE 3

Ten Highest Rated Goals of Students, Teachers and Parents

Students

Rank	Goal	Rating
1	42a Interpersonal Relationships	4.50
2	40a Emotional Security	4.44
3	4b Motor Vehicle Laws & Rules of the Road	4.33
4	4a Driver Responsibilities	4.33
5	16c Personality Development	4.33
6	19c Consumer Health	4.25
7	40f Sensitivity & Concern	4.22
8	42b Social Behavior Skills	4.13
9	16a Personal Health	4.11
10	21c Home Management	4.11

Teachers

Rank	Goal	Rating
1	40a Emotional Security	4.83
2	40b Realistic Responsibility	4.83
3	52a Interpersonal Relationships	4.77
4	43b Personal Philosophy & Values	4.75
5	16c Personality Development	4.67
6	16b Nutrition	4.67
7	41a Self-Concept	4.67
8	41b Achievement Motivation	4.58
9	25b Integration of Information	4.54
10	42b Social Behavior Skills	4.54

Parents

Rank	Goal	Rating
1	41c School Orientation	4.83
2	16c Personality Development	4.80
3	40b Realistic Responsibility	4.80
4	40a Emotional Security	4.70
5	4a Driver Responsibilities	4.60
6	4b Motor Vehicle Laws & Rules of the Road	4.60
7	6a Reading Comprehension Skills	4.60
8	16a Personal Health	4.60
9	16b Nutrition	4.60
10	27a Deductive Reasoning	4.60

Several inferential statistical tests were performed with the data. Table 4 shows the results of three t-tests based upon mean ratings from the population groups. Two t-statistics were significant beyond the .05 level, indicating significant differences among students and other groups of raters. Students tended to rate the goals lower than did teachers and parents; teachers did not rate goals lower than parents.

Table 5 displays the correlations of the mean ratings and rankings for 234 goals for the three groups of raters. Correlations based upon the rankings were significant beyond the .01 level for all combinations of rater groups, indicating some similarity in the goal ranks among the groups.

TABLE 4

Means, Variances and t-statistics
for 234 Goals for 3 Groups of Raters

	Mean Rating	Variance	t[1]	
Students	3.05	.33	3.37*	(students vs. teachers)
Teachers	3.26	.56	1.37	(teachers vs. parents)
Parents	3.35	.41	5.29*	(parents vs. students)

[1] df = 233 for all t's * $p < .05$

TABLE 5

Correlations of the Mean Ratings and Rankings*
for 234 Goals for 3 Groups of Raters

	Students	Teachers	Parents
Students		.61	.52
Teachers	.60		.79
Parents	.51	.78	

*Correlations based on the ratings are above the diagonal; those based on the rankings are below the diagonal (statistical tests revealed the latter 3 to be significant beyond the .01 level).

Comparison of Goal Ratings from 234 Goal Deck with Smaller Decks

Individual t-tests were computed comparing the mean rating of each goal as part of a small deck and the mean rating of the same goal as part of the complete deck. The analyses yielded significant differences for 9 of the 234 goals (4% of the total). This approximated the chance level of frequency. Thus, item sampling of goals did not affect the ratings they received.

A correlation coefficient was computed based on the vector of means yielded from the whole-deck and small-deck procedures. Table 6 shows the results of the analysis.

TABLE 6

Results of Correlation between Mean Ratings:
Goals Rated in Total Deck vs. Goals Rated in Subdecks
(Student Groups Only)

Total Deck Mean	= 2.94
Subdeck Mean	= 3.05
n	= 234
r	= .58

A moderate correlation of .58 indicated a fair degree of relationship between the two goal-rating approaches. The coefficient reveals that the general pattern of goal ratings (as opposed to a comparison of the ratings goal-by-goal) was roughly the same whether derived from the whole-deck or subdeck procedure.

Comparison of Supergoal Ratings with those of the Individual Goals Under them

Correlations were computed between the mean ratings of the supergoals and the mean ratings derived from their corresponding goals (e.g., the mean of supergoal 1 was paired with the mean of five mean ratings of the goals subsumed under supergoal 1, etc.). The standard error of estimate was also computed, where supergoal means were taken as predictors of goal means.

Table 7 shows correlations and standard errors of estimate for the three separate groups and the combined sample.

TABLE 7

Correlations of Supergoal Means with Subgoal Means and Standard Errors of Estimate, Supergoals predicting Goals

	Means		Standard Deviations			
	Supergoals	Goals	Supergoals	Goals	r	Se
Students	2.99	3.05	.45	.58	.39	.53
Teachers	3.18	3.26	.71	.75	.74	.50
Parents	3.57	3.35	.62	.63	.61	.50
Combined Sample	3.20	3.24	.52	.58	.69	.42

A further analysis involved t tests that were computed between each supergoal mean ratings and the mean rating of their corresponding goals. Results showed that a significant difference between supergoal means and goal means existed with 23 of the 64 supergoals (about one-third of the total).

Table 8 lists those supergoals where significant differences occurred. Many of the differences involved areas in which individual goals received high ratings, such as the areas of Personality Characteristics, Health and Safety, and English Language.

TABLE 8

Significant t-statistics ($p < .05$) Obtained in Comparing Supergoal Means with Corresponding Goal Means (Combined Sample)

	Supergoal	Supergoal Mean	Goal Mean	t	df
8.	Grammar	3.76	3.07	3.30	107
9.	Writing Skills	3.98	3.47	3.20	252
10.	Forms of Literature	3.06	3.55	2.54	115
11.	Analysis and Evaluation of Literature	2.71	3.06	2.02	117
14.	Insight into a Foreign Culture	2.65	3.13	2.13	111
16.	Physical and Mental Health	3.86	4.38	-2.91	142
19.	Public Health	3.33	3.93	-3.20	144
32.	Algebra	3.14	2.60	3.23	194
35.	Probability and Statistics	2.31	2.78	-2.71	181
37.	Knowledge of Music	2.45	2.80	-1.99	198
38.	Production of Music	2.16	2.67	-2.51	140
39.	Response to Music	2.61	3.09	-2.32	115
40.	Temperament	3.84	4.24	-2.30	227
41.	Attitudinal Factors of Achievement	3.78	4.22	-2.21	140
42.	Social Behavior	3.78	4.41	-3.33	115
43.	Philosophy	3.22	3.69	-2.27	111
44.	Religion	2.35	2.98	-2.87	169
47.	Personal Impact of Physical Education	3.02	3.45	-2.12	144
49.	Chemistry	2.86	2.49	2.23	223
58.	Sociology	3.39	3.85	-2.72	181
60.	Knowledge and Skills for Vocational Success	3.33	2.85	2.97	266
62.	General Vocational Attitudes	3.57	3.98	-2.36	136
64.	Vocational Perceptual and Motor Abilities	3.35	2.81	2.85	214

Survey of Rater Opinion

The survey of rater opinion elicited reactions to three questions related to the goal-rating process. Results are contained in Table 9. It was found that a high percentage of raters felt the results of the card sort should be incorporated into the school program, even if it were difficult to do so. There was agreement between most parents and teachers that the process of card sorting was "interesting." In contrast, students felt, in approximately equal percentages, that the goal rating was (a) interesting; (b) boring; (c) involved, confusing, or difficult vocabulary; and (d) required the sorting of too many cards. Ninety-two percent of the students who rated a 234 goal deck felt both that the task was boring and that it required sorting too many cards. Relatively high percentages of all respondents were of the opinion that parents, teachers, and students should participate in rating goals. A smaller percentage of students than teachers or parents thought that school administrators, school board members, or community members should rate the goals.

TABLE 9

Percentage of Each Rating Group
Responding to Each Question of Survey

Question	Students (small decks)	Students (234 goal decks)	Teacher	Parents
Do you think the results of the card sorting should be incorporated into the school program?	N=56	N=12	N=67	N=50
Yes, even if it would be difficult to incorporate the results.	18%	58%	64%	38%
Yes, if they could be incorporated without difficulty	70	42	32	50
No	12	0	4	12
Check the ways that you feel about the card sorting.				
Interesting	22%	8%	72%	78%
Boring	23	92	6	0
Vocabulary confusing or difficult	23	0	7	6
Sorting procedures confusing	5	0	0	6
Too many cards to sort	21	92	0	4
Too few cards to sort	3	0	3	0
*Other	3	0	12	6
Check the groups of people you feel should do the card sort.				
Parents	64%	67%	97%	100%
Students	93	75	90	88
Teachers	90	92	100	72
School Administrators	25	25	77	82
School Board Members	48	8	72	40
Community Members	23	8	70	58

*Of the 21 comments made within the "other" category, eight dealt with the general idea that it is very difficult to rate goals objectively. Two comments were from teachers who believed more information was needed for the students for whom the goals were intended before they could be rated effectively. The remainder dealt generally with the concern that often the descripter of a goal (or supergoal) contained some statements that the rater would rate very high and some that he/she would rate very low.

DISCUSSION

Before discussing the results, it should be noted that there are a number of limitations to this study. First, it involved only one suburban high school in a middle class neighborhood. Strictly speaking, results should not be generalized to other types of schools. Further, many independent variables which may affect the ratings (geography, ethnicity of respondents, socio-economic status of student body) could not be explored in one small study and should be investigated in a field test involving numerous schools. Despite these caveats, the study provides valuable information on the rating process, and points up a number of interesting comparisons with the field test results of the Elementary School Evaluation KIT (Hoepfner, Bradley and Doherty, 1973).

There was a fair amount of congruence among the three groups of raters on the goal ratings and rankings, as revealed by correlations ranging from about .51 to .79. Moreover, an examination of the top 10 goals of students, teachers, and parents show many similarities. As with the elementary goal ratings, affective goals such as Personality Development and Emotional Security were consistently rated very high. Other relatively non-academic goals in the areas of Health and Driver Safety also rated prominently. While the exact implications of these results are unclear, it would appear that the presumed dominance of the "3 R's" may be illusory. Traditional subjects did not fare well in the ratings, indeed, mathematics was rated lowest of all the major goal areas. A comment made by Hoepfner, et al., (1973) in discussing the elementary goal ratings can be justifiably reiterated, "Such findings may indicate that our post-Sputnik priorities have changed (p. 40)."

Item sampling of goals appeared to be a workable procedure, at least with the student subjects that were tested in this study. Breaking up the 234 goal deck into 58 or 59 goal decks that proportionally represented the complete list

yielded comparable ratings to the whole-deck procedure.

Comparison of ratings attached to goals and those given to supergoals showed a rather large number of discrepancies. One cannot confidently predict, based on a supergoal rating, what the mean rating of its subsumed goals will be. Examination of those supergoals where discrepancies occurred indicate that many of the high-ranking goals (e.g., in Personality Characteristics) seemed to attract such high ratings that they stood considerably apart from their "fellow goals" under a supergoal. Thus, when the mean was calculated of a group of goals, it was quite different from the supergoal of the group.

The survey of raters showed consistent support for involving many individuals in the goal-rating process. Student reluctance to involve school administrators in goal rating may reflect traditional tensions between the managers and the managed (or, more cynically, the keepers and the inmates). Lack of enthusiasm from those subjects who had to rate a 234 goal deck is understandable. Rating the complete deck took as long as 75 minutes, while no person rating a smaller deck took longer than 25 minutes to complete the task.

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APPENDIX

TABLE 10
Mean Ratings for Supergoals and Goals

Supergoals and Goals		Average Ratings			
		Students	Teachers	Parents	Combined Sample
1.	Knowledge of Arts and Crafts	2.62	3.00	2.42	2.71
1	1A. Nature and Scope of Art	3.00	3.67	3.40	3.39
2	1B. Art Materials and Techniques	2.67	2.67	2.60	2.65
3	1C. Art Composition and Style	2.67	2.83	2.63	2.72
4	1D. Works of Art	2.89	3.33	2.75	3.03
5	1E. Analysis of Art and Craft Products	3.00	2.58	2.50	2.69
2.	Production of Art and Craft Works	2.67	3.06	2.42	2.75
6	2A. Mechanical and Hand Skills in Art	3.33	2.75	3.00	3.00
7	2B. Compositional and Style Skills in Art	3.11	2.58	2.50	2.72
8	2C. Subject Matter Skills in Art	2.25	3.31	2.83	2.88
3.	Response to Arts and Crafts	2.48	2.89	2.42	2.61
9	3A. Personal Response to Arts and Crafts	2.38	3.62	3.08	3.12
10	3B. Judgmental Response to Art	2.13	3.23	2.92	2.85
4.	Fundamentals of Safe Driving	4.14	3.89	4.67	4.18
11	4A. Driver Responsibilities	4.33	4.42	4.60	4.45
12	4B. Motor Vehicle Laws and Rules of the Road	4.33	4.25	4.60	4.39
13	4C. Basic Driving Skills	3.44	3.83	4.00	3.76
14	4D. Auto Accident Prevention	2.78	4.33	4.25	3.83
15	4E. Procedure in the Event of Auto Accident	2.89	4.08	3.88	3.66

Supergoals and Goals			Average Ratings			
			Students	Teachers	Parents	Combined Sample
5.		Fundamentals of Motor Vehicle Purchase and Maintenance	3.43	3.17	3.58	3.37
16	5A.	Motor Vehicle Maintenance and Repair	2.75	3.46	3.08	3.15
17	5B.	Economics of Motor Vehicle Purchase	3.38	3.62	3.42	3.48
6.		Developmental Reading	3.38	4.44	4.83	4.10
18	6A.	Reading Comprehension Skills	3.78	4.42	4.60	4.29
19	6B.	Research and Study Skills	3.33	3.92	4.40	3.90
20	6C.	Vocabulary Development and Spelling	3.33	3.58	4.00	3.65
7.		Speech, Drama, and Oral Presentation	2.81	3.67	3.83	3.35
21	7A.	Organization of Ideas for Oral Presentation	2.78	3.17	3.60	3.19
22	7B.	Types of Speeches and Drama	2.89	2.83	3.20	2.97
23	7C.	Mechanics of Oral Presentation	3.22	3.08	3.50	3.26
24	7D.	Listening Habits	3.11	4.25	4.25	3.90
8.		Grammar	3.57	3.50	4.50	3.76
25	8A.	Parts of Speech	3.89	2.75	3.13	2.90
26	8B.	Grammar of Sentences	3.44	2.83	3.63	3.24
9.		Writing Skills	3.43	4.06	4.83	3.98
27	9A.	Organization of Ideas for Writing	2.89	3.67	4.25	3.59
28	9B.	Sentence and Paragraph Development	2.89	3.83	3.75	3.52
29	9C.	Style	2.56	3.83	3.38	3.31
30	9D.	Mechanics of Writing	2.44	4.08	4.38	3.66
31	9E.	Formal Writing	3.22	3.17	3.88	3.38
32	9F.	Personal Writing	3.11	4.42	3.88	3.86
33	9G.	Creative Writing	3.11	2.67	3.38	3.00

Supergoals and Goals			Average Ratings			
			Students	Teachers	Parents	Combined Sample
10.		Forms of Literature	2.48	3.33	3.67	3.06
34	10A.	Knowledge and Understanding of Literature	3.88	3.38	3.58	3.58
35	10B.	Sources of Literature	3.25	3.62	3.58	3.52
11.		Analysis and Evaluation of Literature	2.14	2.89	3.42	2.71
36	11A.	Analysis of Plot and Theme	2.63	3.15	3.33	3.09
37	11B.	Analysis of the Structure of Literary Works	3.38	2.77	2.83	2.94
38	11C.	Evaluation of Literature	3.00	3.08	3.08	3.06
39	11D.	Appreciation of Literature	2.89	3.33	3.25	3.17
12.		Knowledge of the Elements of a Foreign Language	2.62	2.56	2.75	2.63
40	12A.	Foreign Language Writing Systems	2.56	2.92	2.60	2.71
41	12B.	Foreign Language Phonetics	2.89	2.83	2.80	2.84
42	12C.	Foreign Language Vocabulary	2.89	3.25	2.90	3.03
43	12D.	Foreign Language Grammar	2.78	3.00	2.63	2.83
13.		Mastery of Foreign Language Technique	2.71	2.78	2.75	2.75
44	13A.	Foreign Language Reading Ability	2.56	3.33	3.00	3.00
45	13B.	Foreign Language Listening Comprehension	2.22	3.25	3.13	2.90
46	13C.	Foreign Language Writing Ability	2.78	2.33	2.75	2.59
47	13D.	Foreign Language Speaking Ability	3.56	3.17	3.38	3.34
14.		Insight into a Foreign Culture	2.52	2.89	2.50	2.65
48	14A.	Literature of a Foreign Culture	2.89	2.50	2.38	2.59
49	14B.	Social-Historical Features of a Foreign Culture	2.88	4.08	3.58	3.61

Supergoals and Goals	Average Ratings: Students	Teachers	Parents	Combined Sample
15. Assimilation of Foreign Language and Culture	2.86	3.17	3.08	3.02
50 15A. Interest in Learning and Using a Foreign Language	2.75	3.54	3.33	3.27
51 15B. Interest in Learning About and Involvement in a Foreign Culture	2.75	3.62	3.33	3.30
16. Physical and Mental Health	3.38	4.06	4.42	3.86
52 16A. Personal Health	4.11	4.33	4.60	4.35
53 16B. Nutrition	4.00	3.92	4.60	4.16
53 16C. Personality Development	4.33	4.67	4.80	4.61
17. Habit Forming Substances and Their Use	3.67	3.72	4.33	3.84
55 17A. Smoking and Tobacco	3.11	4.25	3.50	3.69
56 17B. Alcohol and Alcoholism	3.33	4.33	3.38	3.76
57 17C. Drug Use and Abuse	3.56	4.67	3.88	4.10
18. Marriage, Family, and Sex Education	3.24	4.33	4.58	3.94
58 18A. Sex Education	3.44	4.33	4.25	4.03
59 18B. Dating	2.78	3.50	3.75	3.34
60 18C. Marriage and Family Life	3.22	4.00	4.00	3.76
19. Public Health	3.14	3.39	3.58	3.33
61 19A. Community Health	3.11	4.42	3.75	3.83
62 19B. Diseases	3.75	3.92	3.92	3.88
63 19C. Consumer Health	4.25	4.08	3.92	4.06
20. Safety Education	3.67	3.67	3.42	3.61
64 20A. Safety and Accidents	3.88	4.08	3.58	3.85
65 20B. First Aid	4.00	3.54	3.58	3.67

	Supergoals and Goals	Average Ratings: Students	Teachers	Parents	Combined Sample
21.	Home and Family Management	3.24	3.67	3.50	3.45
66	21A. Family Relations	3.89	4.33	4.30	4.19
67	21B. Home Nursing and Child Care	3.89	3.25	3.40	3.48
68	21C. Home Management	4.11	3.58	3.70	3.77
69	21D. Consumer Economics	2.67	4.00	3.50	3.45
70	21E. Housing	2.56	3.50	3.00	3.07
71	21F. Furnishing	2.67	3.00	2.75	2.83
22.	Food and Meal Preparation	2.67	2.78	3.08	2.80
72	22A. Food Preparation	3.22	3.33	3.13	3.24
73	22B. Meal Serving	2.67	2.67	2.88	2.72
23.	Clothing and Textiles	2.29	2.33	2.67	2.39
74	23A. Clothing and Textile Selection	2.38	2.77	2.58	2.61
75	23B. Sewing and Clothing Construction	2.50	2.23	2.75	2.48
76	23C. Care of Clothing	2.38	2.77	2.50	2.58
24.	Industrial Arts and Practices	2.90	2.78	3.00	2.88
77	24A. Industrial Shop Safety	3.22	2.83	3.50	3.16
78	24B. Drafting (non-vocational)	2.22	2.17	2.90	2.42
79	24C. Woodworking (non-vocational)	2.67	2.83	2.25	2.62
80	24D. Metals and Machines (non-vocational)	2.67	2.75	2.50	2.66
81	24E. Electricity and Electronics (non-vocational)	3.22	2.42	3.13	2.86
82	24F. Graphics (non-vocational)	2.78	2.50	2.50	2.59
83	24G. Auto Mechanics (non-vocational)	3.13	3.00	2.83	2.97

Supergoals and Goals	Average Ratings			
	Students	Teachers	Parents	Combined Sample
25. Understanding	3.33	4.39	4.25	3.92
84 25A. Comprehension and Production of Information	3.38	4.46	4.08	4.06
85 25B. Integration of Information	3.25	4 54	4.42	4.18
26. Memory	3.33	2.72	3.67	3.20
86 26A. Rote Memory	2.33	1.67	2.00	1.97
87 26B. Meaningful Memory	3.11	3.67	3.90	3.58
27. Systematic Reasoning	3.29	4.44	4.50	3.98
88 27A. Deductive Reasoning	3.33	4.25	4.60	4.10
89 27B. Inductive Reasoning	2.78	3.83	3.88	3.52
28. Creativity	3.33	4.44	4.17	2.92
90 28A. Ingenuity	3.11	4.08	3.88	3.72
91 28B. Flexibility	3.11	4.08	4.50	3.90
92 28C. Elaboration	2.78	3.75	2.63	3.14
29. Evaluation	3.57	4.22	4.58	4.04
93 29A. Logical Judgment	4.11	4.25	3.50	4.00
94 29B. Social Judgment	4.33	4.25	3.75	4.14
30. General Mathematics	3.43	3.56	4.67	3.76
95 30A. Arithmetic	3.78	4.00	4.30	4.03
96 30B. Number Concepts, Systems, and Sets	2.89	3.08	3.40	3.13
97 30C. Measurement	2.89	3.50	3.50	3.32

Supergoals and Goals			Average Ratings			
			Students	Teachers	Parents	Combined Sample
31.		Applied Mathematics	2.86	2.50	3.58	2.90
98	31A.	Business and Consumer Mathematics	3.44	3.42	3.90	3.58
99	31B.	Industrial and Vocational Mathematics	2.78	2.58	3.20	2.84
100	31C.	Computer Programming	2.56	2.42	3.20	2.71
101	31D.	Computer Theory and Practice	2.33	2.08	3.00	2.45
32.		Algebra	3.24	2.61	3.75	3.14
102	32A.	Algebraic Skills and Concepts	3.11	2.67	3.00	2.90
103	32B.	Real and Complex Number Systems	2.78	2.67	2.75	2.72
104	32C.	Equations and Inequalities	2.67	2.50	2.75	2.62
105	32D.	Exponents, Radicals, Logarithms, and Functions	2.22	2.25	2.50	2.31
106	32E.	Linear Algebra	2.67	2.00	2.88	2.45
33.		Geometry	3.10	2.28	3.67	2.94
107	33A.	Informal Geometry	2.67	3.00	3.25	2.97
108	33B.	The Nature of Proof in Mathematics	2.89	2.50	2.75	2.69
109	33C.	Euclidean Plane Geometry	3.33	2.50	2.63	2.79
110	33D.	Coordinate Plane Geometry	3.11	2.33	2.13	2.52
111	33E.	Solid Geometry	3.33	2.08	3.00	2.72
34.		Trigonometry	2.33	1.67	3.17	2.29
112	34A.	Trigonometric Rules	2.89	2.50	2.75	2.69
113	34B.	Coordinate Trigonometry	3.00	2.42	2.00	2.48
114	34C.	Trigonometric Formulas and Identities	2.89	2.33	2.63	2.59
115	34D.	Trigonometric Circular Functions	2.78	2.33	2.38	2.48

Supergoals and Goals			Average Ratings			
			Students	Teachers	Parents	Combined Sample
35.		Probability and Statistics	2.24	2.06	2.83	2.31
116	35A.	Organizing and Presenting Statistical Data	3.50	2.62	3.17	3.03
117	35B.	Descriptive Statistics	2.25	2.31	2.92	2.52
118	35C.	Probability Concepts and Distributions	2.88	2.62	3.08	2.85
119	35D.	Statistical Inference	3.00	2.38	2.92	2.73
36.		Advanced Mathematics	2.57	1.67	3.08	2.37
120	36A.	Analysis and Elementary Functions	2.50	2.08	2.83	2.45
121	36B.	Analytic Geometry	2.38	2.31	3.25	2.67
122	36C.	Calculus	2.00	2.15	3.00	2.42
37.		Knowledge of Music	2.19	2.50	2.83	2.45
123	37A.	Nature and Scope of Music	3.11	3.67	3.60	3.48
124	37B.	Elements and Media of Music	2.67	2.92	2.50	2.71
125	37C.	Structure and Organization of Music	1.89	3.08	3.00	2.69
126	37D.	Knowledge of Musical Works	2.11	3.17	3.13	2.83
127	37E.	Analysis of Musical Works	1.78	2.33	2.63	2.24
38.		Production of Music	2.14	1.89	2.58	2.16
128	38A.	Vocal Performing Skills in Music	2.67	2.42	3.25	2.72
129	38B.	Instrumental Performing Skills in Music	3.44	2.33	3.38	2.97
130	38C.	Compositional Skills in Music	3.00	1.62	2.75	2.36
39.		Response to Music	2.14	2.89	3.00	2.61
131	39A.	Personal Response to Music	3.38	3.23	3.42	3.33
132	39B.	Judgmental Response to Music	2.88	2.85	2.83	2.85

		Average Ratings			
Supergoals and Goals		Students	Teachers	Parents	Combined Sample
40.	Temperament	3.14	4.44	4.17	3.84
133	40A. Emotional Security	4.44	4.83	4.70	4.68
134	40B. Realistic Responsibility	4.11	4.83	4.80	4.61
135	40C. Inquiring Boldness	2.67	4.00	4.38	3.69
136	40D. Productive Self Assertion	3.00	4.33	4.38	3.93
137	40E. Friendliness and Trust	3.78	4.50	4.25	4.21
138	40F. Sensitivity and Concern	4.22	4.17	4.38	4.24
41.	Attitudinal Factors of Achievement	2.95	4.39	4.33	3.78
139	41A. Self-Concept	4.11	4.67	4.25	4.38
140	41B. Achievement Motivation	3.44	4.58	4.38	4.17
141	41C. School Orientation	3.25	4.00	4.83	4.12
42.	Social Behavior	3.19	4.22	4.17	3.78
142	42A. Interpersonal Relationships	4.50	4.77	4.17	4.48
143	42B. Social Behavior Skills	4.13	4.54	4.25	4.33
43.	Philosophy	3.05	3.17	3.58	3.22
144	43A. Nature and Scope of Philosophy	2.56	3.17	3.60	3.13
145	43B. Personal Philosophy and Values	3.44	4.75	4.40	4.26
44.	Religion	2.05	2.17	3.17	2.35
146	44A. World Religions	2.00	3.50	3.75	3.10
147	44B. Knowledge of Own Religion	3.00	3.00	3.50	3.14
148	44C. Personal Acceptance and Belief in Religion	2.78	2.33	3.50	2.79
149	44D. Personal Religious Practices	3.13	2.54	3.17	2.91

	Supergoals and Goals	Average Ratings: Students	Teachers	Parents	Combined Sample
45.	Physical Development and Well-Being	3.33	3.61	4.17	3.63
150	45A. Physical Growth and Development	3.67	4.08	4.50	4.10
151	45B. Motor Skills, Movement, and Muscular Coordination	3.11	3.42	4.00	3.52
46.	Sports and Games	2.95	2.83	3.33	3.00
152	46A. Rules and Strategies of Sports and Games	2.44	2.67	3.00	2.69
153	46B. Skill in Sports and Games	2.44	3.00	2.63	2.72
154	46C. Physical Education Equipment	3.22	2.42	3.38	2.93
47.	Personal Impact of Physical Education	2.62	3.06	3.67	3.02
155	47A. Social and Psychological Impact of Physical Education	3.33	3.58	3.88	3.59
156	47B. Group Activity and Sportsmanship	3.25	3.92	3.75	3.70
157	47C. Interest and Independent Participation in Sports and Games	2.88	3.23	3.08	3.09
48.	Biology	3.38	3.67	3.67	3.55
158	48A. Nature, Origin, and Evolution of Life	3.22	3.25	3.60	3.35
159	48B. Reproduction	4.00	3.92	3.90	3.94
160	48C. Plants	2.44	2.67	2.80	2.65
161	48D. Animals	2.44	2.67	3.00	2.71
162	48E. The Biology of Man	3.33	3.33	4.00	3.55
163	48F. Ecology	3.89	4.00	4.10	4.00
164	48G. Investigative Skills and Knowledge in Biology	2.00	3.17	2.63	2.66

	Supergoals and Goals	Average Ratings: Students	Teachers	Parents	Combined Sample
49.	Chemistry	3.00	2.39	3.33	2.86
165	49A. History, Theories, and Principles of Chemistry	2.44	2.50	2.75	2.55
166	49B. Terminology, Symbols, and Element Families	2.56	2.17	2.75	2.45
167	49C. Atomic and Molecular Structure	2.33	2.08	2.75	2.34
168	49D. Chemical Reactions	2.22	1.83	2.75	2.21
169	49E. Carbon Compounds and Bio-Chemistry	2.33	2.50	2.63	2.48
170	49F. Investigative Skills in Chemistry	2.56	2.58	3.75	2.90
50.	General Science	3.24	2.39	3.67	3.04
171	50A. Geology	2.89	2.83	3.63	3.07
172	50B. Weather Science	2.89	2.50	3.00	2.76
173	50C. Ocean Science	3.00	2.75	3.38	3.00
174	50D. Space Science	2.78	3.00	3.25	3.00
51.	Physics	2.81	2.28	3.25	2.73
175	51A. Mechanics	3.13	2.31	3.25	2.85
176	51B. Kinetic Theory	1.88	2.08	2.75	2.27
177	51C. Fields and Electricity	2.25	2.23	2.75	2.42
178	51D. Waves and the Propagation of Energy	1.88	2.38	2.75	2.39
179	51E. Atomic and Nuclear Physics	1.75	2.46	3.25	2.58
52.	Anthropology	2.71	2.89	3.00	2.84
180	52A. Nature and Scope of Anthropology	2.44	2.92	3.30	2.90
181	52B. Characteristics of Cultures	3.22	3.33	3.50	3.35
182	52C. Human Evolution and Variations	2.78	2.67	3.20	2.87

	Supergoals and Goals	Average Ratings: Students	Teachers	Parents	Combined Sample
53.	Economics	3.67	3.00	3.75	3.45
183	53A. Business and Trade	3.67	3.33	3.60	3.52
184	53B. Economic Systems	3.56	3.67	3.90	3.71
54.	Geography	2.52	3.00	3.42	2.90
185	54A. Physical Geography	2.56	2.75	3.50	2.94
186	54B. Cultural and Social Geography	2.89	3.50	4.13	3.48
187	54C. Political and Economic Geography	2.89	3.67	3.88	3.48
55.	Government	3.67	3.72	4.42	3.86
188	55A. United States Government	3.78	4.50	4.25	4.21
189	55B. Other Types of Government	3.22	3.75	3.88	3.62
190	55C. Citizenship	3.56	4.42	4.00	4.03
56.	History	2.86	2.94	3.67	3.08
191	56A. Ancient History	2.33	2.42	3.00	2.55
192	56B. Medieval History	2.22	2.25	2.75	2.38
193	56C. Modern World History	3.11	3.25	3.25	3.21
194	56D. American History	3.33	3.83	3.38	3.55
195	56E. State and Local History	2.78	3.83	3.38	3.38
57.	Psychology	3.33	3.61	3.75	3.53
196	57A. The Nature and Scope of Psychology	3.67	2.92	2.88	3.14
197	57B. Human Behavior	3.89	4.00	3.75	3.90
198	57C. How Psychology Can Help People	3.78	4.08	3.13	3.72
58.	Sociology	3.05	3.67	3.58	3.39
199	58A. Man and His Society	3.63	4.23	4.25	4.09
200	58B. Distribution and Organization of People	3.88	3.62	3.92	3.79

Supergoals and Goals			Average Ratings			
			Students	Teachers	Parents	Combined Sample
201	58C.	Social Change	3.63	3.85	3.92	3.82
202	58D.	Minority Groups in America	3.38	4.00	3.58	3.70
59.		Social Studies Skills	2.57	3.39	3.33	3.04
203	59A.	Research Skills in Social Studies	2.63	3.38	3.42	3.21
204	59B.	Critical Thinking Skills in the Social Studies	2.13	3.85	3.75	3.39
205	59C.	Interest in the Social Studies	2.63	3.77	3.75	3.48
60.		Knowledge and Skills for Vocational Success	3.33	3.28	3.42	3.33
206	60A.	Agricultural Vocations	2.44	2.08	3.00	2.48
207	60B.	Distributive Vocations	2.33	3.08	3.00	2.84
208	60C.	Health Occupations	3.00	2.92	2.50	2.81
209	60D.	Gainful Home Economics Vocations	3.00	3.33	3.20	3.19
210	60E.	Office Occupations	3.00	3.00	3.10	3.03
211	60F.	Technical Vocations	2.67	2.75	2.80	2.74
212	60G.	Trade and Industrial Occupations	2.89	2.58	3.20	2.87
61.		General Vocational Aptitudes	3.29	3.39	3.75	3.43
213	61A.	Clerical Aptitude	2.44	3.00	2.50	2.69
214	61B.	Following Directions and Applications	3.22	4.42	3.25	3.72
215	61C.	Spatial Aptitude	2.67	2.75	2.00	2.52
216	61D.	Mathematical Facility	3.22	3.33	3.13	3.24
217	61E.	Vocational Creativity	3.33	3.42	3.25	3.34
218	61F.	Managerial Aptitude	2.67	3.33	3.25	3.10
219	61G.	Interpersonal Skills	3.44	4.08	3.13	3.62

Supergoals and Goals		Average Ratings			
		Students	Teachers	Parents	Combined Sample
62.	General Vocational Attitudes	3.38	3.56	3.92	3.57
220	62A. Vocational Responsibility	3.56	4.42	4.00	4.03
221	62B. Job Adaptability	3.78	4.25	3.75	3.97
222	62C. Vocational Relationships	2.56	4.00	4.25	3.93
63.	Vocational Interests	3.19	3.39	3.17	3.25
223	63A. Mechanical-Manual Interests	3.33	3.00	3.25	3.17
224	63B. Social Interests	3.67	3.92	3.50	3.72
225	63C. Theoretical Interests	3.56	4.17	2.63	3.55
226	63D. Outdoor Interests	4.00	3.00	2.75	3.24
227	63E. Creative Interests	3.75	3.46	3.33	3.48
228	63F. Office Interests	3.75	2.54	2.67	2.88
229	63G. Domestic Interests	3.75	2.77	2.92	3.06
64.	Vocational Perceptual and Motor Abilities	2.95	3.56	3.75	3.35
230	64A. Auditory Acuity	2.63	2.62	2.25	2.48
231	64B. Visual Acuity	3.50	2.85	2.50	2.88
232	64C. Coordination	3.88	3.00	2.83	3.15
233	64D. Dexterity	3.88	2.62	2.42	2.85
234	64E. Physical Stamina and Strength	3.38	2.62	2.25	2.67